

## Unit 5. Application of Vulnerability Assessment

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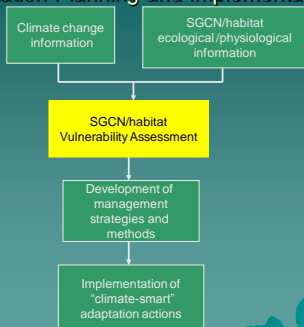
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### Vulnerability Assessment is Essential Component of Adaptation Planning and Implementation




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### Vulnerability Assessment is Essential Component of Adaptation

Central adaptation question: how to allocate limited resources to meet real challenges and avoid poor investment decisions?

- ♦ Which ecosystems/species/sites are vulnerable to cc?
- ♦ Which ecosystems/species/sites may benefit or be unaffected?
- ♦ Which systems/species can be managed under cc?
- ♦ How will systems change – time line?
- ♦ State and regional vulnerabilities?

Vulnerability assessment is focusing process for adaptation – the road to adaptation lies through VA.

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## Application of Vulnerability Assessment

- ◆ Can be stand-alone (e.g., to support listing)
- ◆ Most valuable as a stepping stone to adaptation action:
  - Removal of a threat
  - New management actions
  - Changes to existing management actions
  - Acquisition of new lands
  - Planning monitoring strategies
  - Allows us to begin planning for change, rather than stasis

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## Application of Vulnerability Assessment

Threat amelioration:

- ◆ VA allows us to identify (and ameliorate?) existing stressors that reduce system/species resilience
- ◆ Allows us to assess the relative importance of climate and non-climate stressors
- ◆ Allows us identify systems/species that will *benefit* from cc
- ◆ Allows us to identify potentially maladaptive responses

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## Application of Vulnerability Assessment

Management of habitats/species:

- ◆ VA helps us understand which current management actions will “work” under cc
- ◆ Helps us identify and formulate new management options
- ◆ Helps us plan for the future

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### Application of Vulnerability Assessment

Identify potentially maladaptive responses:

- ◆ Armoring coastlines
- ◆ Water draw-downs

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### Application of Vulnerability Assessment

Management of habitats/species (examples):

- ◆ White-tailed deer in Northeast
- ◆ Forest stand age structure
- ◆ Management of "doomed" habitats/species

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### Application of Vulnerability Assessment

Acquisition of new holdings:

- ◆ Is it worth allocating scarce resources to habitats/species that will become more abundant?
- ◆ Is it worth allocating scarce resources to habitats/species that are "toast"?
- ◆ Is it worth allocating scarce resources to habitats/species that may be "safe" in another part of the region?

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